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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/621,542

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Werner Lautenschlager

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EXAMINER

MAYEKAR, KISHOR

ART UNIT

PAPER NUMBER

1753

MAIL DATE

DELIVERY MODE

09/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/621,542

Applicant(s)

LAUTENSCHLAGER, WERNER

Examiner

Kishor Mayekar

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11, 13-15, 18-34, 36, 37 and 39-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 13-15, 18-34, 36, 37 and 39-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. Applicant's arguments with respect to claims 1-9, 11, 13-15, 18-34, 36, 37 and 39-45 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 40-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 40 is indefinite for depending upon a cancelled claim 38.

Claims 41 and 42 are indefinite for depending upon the indefinite claim 40.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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5. Claims 1-7, 11, 13-15, 18, 19, 21-31, 36, 37 and 39-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warmbier et al. (US 5,408,074) in combination with Miyazaki et al. (US 4,565,670), Hansen et al. (US 4,759,300), Schiffmann et al. (US 5,645,748) and/or GB 2,110,803A. Warmbier's invention, a reference cited in the last Office, is directed to an apparatus for the selective control of heating and irradiation of materials in a conveying path. Warmbier discloses that the apparatus comprises a conveying path defined by a pipe 1 (a container), a screw conveyor 2 rotatably mounted in the pipe 1 by which the material is supplied to the pipe 1 and a treatment chamber formed therebetween, microwave generators 3, and a resonator 5 (microwave chamber) surrounding a length of the pipe 1 (Figs. 1 and 2; col. 3, lines 6-18 and col. 4, lines 27-34 and lines 41-46). Since the treatment chamber is formed between the pipe 1 and the screw conveyor 2, the treatment chamber has the helical shape fitted to the present invention's disclosure on page 15. Warmbier discloses in Fig. 1 the pipe 1 being extended at least partly in the microwave chamber and protruded therefrom; and in Fig. 2 and col. 4, 27-34 that the materials are supplied through a funnel opening 13 (a lateral connecting opening) of an extruder 11 and transported in the transporting direction 8 by its screw conveyor 2 through the microwave chamber. Warmbier further discloses in col. 5, lines 7-13 that when, the materials are in liquid or suspended form, the materials can be treated by the arrangement with appropriate conveying means such as rotating pipes. As such Warmbier discloses an apparatus comprising all the structures as claimed except for the

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recited pump, the recited treatment chamber connected to a pressure-limiting valve, and the recited arrangement of the apparatus such that it can be inclined and locked in an inclined position. Miyazaki, another reference cited in the last Office action, teaches in a heat treating apparatus using microwave the provision of an inner rotating container, a device for feeding a material to be treated into an annular passage 4 through an inlet 1 to an outlet 2, the passage 14 being inclined and locked, and the provision of a discharge port 8 (Figs. 1 and 2; col. 3, lines 11-39). Hansen teaches in an apparatus for heating materials by microwave the use of a pump to move the material in liquid (col. 3, lines 51-54). Schiffmann teaches in an apparatus for heating materials by microwave the provision a pressure-limiting valve to release pressure during the heating. GB '803 shows in a heat-treating apparatus using microwave the heating section 3 includes a manifold 39 located on the top of the heating section to hold vapors and the withdrawn of vapors from the manifold 39 via outlet 41 (col. 2, lines 11-17). It appears that the outlet 41 is equivalent to the recited pressure-limiting device. The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Warmbier's teachings as shown by Miyazaki, Hansen and Schiffmann because the use of pump would result in moving the material, when the material is in liquid, into the pipe from the inlet to the outlet, the provision of an inclined pipe would result in facilitating the moving of the material therethrough, and, since the heating would release some vapor in the pipe when the material to be treated is in liquid, the provision of a pressure-limiting

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valve would ensure the safety of the operation, result in exhausting excessive pressure and render the heating section safe from excessive internal pressure.

As to the subject matter of claim 2, Warmbier's device inherently possesses the recited mixing device because of the use of the spiral device starting in the container for transporting materials therefrom.

As to the subject matter of claim 3, Warmbier's screw conveyor is the same as the worm conveyor. Further, if there is a difference between Warmbier's screw conveyor and the recited worm conveyor, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Warmbier's teachings because the selection of any of known equivalent conveyors for transporting the material would have been within the level of ordinary skill in the art.

As to the subject matter of claims 18, 19, 29 and 30, the selection of the longitudinal would have been within the level of ordinary skill in the art as it has been settled that proper adjustment of a known effective variable of a known or obvious process is within the capabilities of one having ordinary skill in the art, *In re Aller* 105 USPQ 233; *In re Boesch* 205 USPQ 215.

6. Claims 8, 9, 20 and 32-34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Warmbier '074 as modified by Miyazaki '670), Hansen '300 and Schiffmann '748 in view of MacKenzie (US 4,608,261). The difference between Warmbier

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as applied above and the instant claims is the detailing of the recited connection of the container. MacKenzie, another reference cited in the last Office action, teaches the detailing in a heat-treating apparatus using microwave (Fig. 1). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references' teachings as shown by MacKenzie because this would result in attaching the container to the apparatus housing.

As to the subject matter of claims 12, 13, 22-24 and 38-42, GB '803 shows the limitation (section 3 in Fig. 1) and that a feed hopper may be replaced by an extruder device (col. 2, lines 42-44). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references' teachings as shown by GB '808 because this would result in heating the material prior to subjecting to microwave. Further, the motivation to make a specific structure is always related to the properties or uses one skilled in the art would expect the structure to have, *In re Newell* 13 USPQ 2d 1248, *Fromson v. Advance Offset Plate* 225 USPQ 26; *In re Gyurik* 201 USPQ 552

Response to Arguments

7. Applicant's arguments filed 2 July 2007 have been fully considered but they are not persuasive.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

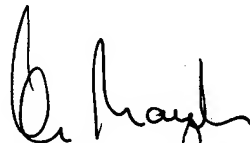
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kishor Mayekar
Primary Examiner
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